

MEDICAL**[MBBS 0325]****MARCH 2025****Sub. Code :6065****M.B.B.S. DEGREE EXAMINATIONS****(For the candidates admitted from the Academic Year 2019-2020)****SECOND PROFESSIONAL – SUPPLEMENTARY - (CBME)****PAPER I – MICROBIOLOGY*****Q.P. Code: 526065*****Time: 20 Minutes****Maximum : 20 Marks****Answer All Questions****Shade the correct answer with Black or Blue ink ball point pen****SET - A****III. Multiple Choice Questions:****(20 x 1 = 20)**

1. The process by which bacteria exchange genetic material via a pilus is called:
A) Transformation B) Transduction C) Conjugation D) Binary fission
2. Which of the following bacterial components is responsible for the formation of biofilms?
A) Cell wall B) Capsule C) Plasmid D) Flagella
3. The term "bactericidal" refers to:
A) Inhibition of bacterial growth B) Killing of bacteria
C) Reduction in bacterial virulence D) Stimulation of bacterial replication
4. Bacteria that can grow at temperatures between 45°C and 80°C are called:
A) Psychrophiles B) Mesophiles C) Thermophiles D) Halophiles
5. Which cytokine is primarily responsible for the differentiation of naive T cells into Th1 cells?
A) IL-4 B) IL-6 C) IL-12 D) IL-10
6. What is the role of regulatory T cells (Tregs)?
A) Activation of B cells B) Cytokine production
C) Suppression of the immune response D) Phagocytosis
7. The phenomenon of 'immune surveillance' is primarily associated with:
A) Detection of pathogens B) Detection of cancer cells
C) Detection of allergens D) Detection of self-antigens
8. Which of the following statements about interferons is true?
A) They activate B cells
B) They are involved in allergic responses
C) They have antiviral properties
D) They are components of the complement system
9. All of the above can be given for the Treatment of MRSA, **Except**
A) Vancomycin B) Linezolid C) Cotrimoxazole D) Meropenem

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10. The toxin produced by *Clostridium perfringens* that causes muscle necrosis is:
A) Tetanospasmin B) Alpha toxin C) Botulinum toxin D) Exotoxin A
11. Which of the following is the most common cause of Tinea capitis?
A) *Trichophyton rubrum* B) *Trichophyton tonsurans*
C) *Microsporum canis* D) *Epidermophyton floccosum*
12. Black Piedra is caused by:
A) *Trichosporon* species B) *Piedraia hortae*
C) *Malassezia furfur* D) *Candida albicans*
13. Which stain is used for visualizing fungi in tissue samples?
A) Gram stain B) Giemsa stain
C) Periodic acid-Schiff (PAS) stain D) Wright's stain
14. Dermatophytes invade which layer of the skin?
A) Subcutaneous tissue B) Epidermis C) Dermis D) Hypodermis
15. Which of the following is a non-enveloped virus?
A) Hepatitis C virus B) Influenza virus
C) Human Papillomavirus (HPV) D) Herpes Simplex Virus
16. Hospital-acquired infections are defined as infections:
A) Present at the time of hospital admission
B) Acquired 48 hours or more after hospital admission
C) Acquired from food consumed in the hospital
D) Transmitted through blood transfusions only
17. Which of the following strategies can reduce the risk of catheter-associated bloodstream infections (CABIs)?
A) Frequent use of antibiotics
B) Changing catheters every few days unnecessarily
C) Using aseptic technique during catheter insertion
D) Reusing catheters
18. A positive Tuberculin test is an example of
A) Type I Hypersensitivity B) Type II Hypersensitivity
C) Type III Hypersensitivity D) Type IV Hypersensitivity
19. All are Heterophile Agglutination Test, **Except**
A) Weil Felix test B) Paul Bunnell Test C) Cold agglutinin Test D) VDRL test
20. Endoscopes are sterilized by
A) Glutaraldehyde B) Formaldehyde C) Autoclaving D) Hot air oven

[MBBS 0325]